

Carex pedunculata, Muhl. Rich woods at base of Hatchet Hill, Southbridge, May 15.

Cladium mariscoides, Torr. Lead Mine Pond, Sturbridge, July 31.

Eleocharis Robbinsii, Oakes. In about two feet of water in Lake Chaubunagungamaug, Webster, August 14.

Rhynchospora alba, Vahl. Cedar-swamp, Charlton, July 16; sphagnum bogs and shore of Lead Mine Pond, Sturbridge, July 31; wet meadow, Southbridge, August 20.

Juncus bufonius, L. Roadside ditches, low grounds, etc., Southbridge, July 9.

Polygonum Carey, Olney. Damp sand near brickyard, Southbridge, August 21.

Polygonum hydropiperoides, Michx. Slow-flowing brooks, in meadows, Southbridge, August 20; Charlton, September 9.

Rumex verticillatus, L. Cedar-swamp, Charlton, July 16.

Arenaria serpyllifolia, L. Roadside in Hillside Park, Southbridge, June 12.

Potentilla recta, L. Same locality and date.

Linum Virginianum, L. Dry woods, road sides, etc., Southbridge, July 6; Sturbridge, July 31.

Bartonia tenella, Muhl. Sphagnum bog, Sturbridge, July 31; dry woods, Southbridge, August 7.

Gerardia purpurea, L., var. *paupercula*, Gray. Shore of Lead Mine Pond, Sturbridge, August 28; damp roadsides, Charlton, September 9; Princeton, September 10.

Aster infirmus, Michx. Dry woods on the west slope of Asnebumskit Hill, Paxton, September 9.

Most of the above are found elsewhere in the state, and would naturally be expected in this county, but many of them are inconspicuous or bear considerable resemblance to other species, and have probably hitherto escaped recognition for these reasons.

SOUTHBRIDGE, MASS.

POISONING BY *AGARICUS ILLUDENS*.

W. G. FARLOW.

THAT *Agaricus illudens* Schweinitz is a poisonous species, and one not to be eaten with impunity, has been known to mycologists for a

good many years. Since, however, in most cases of poisoning it is difficult to obtain accurate records of the circumstances under which the poisoning occurred, the following detailed account, for which I am indebted to Prof. G. F. Moore of Andover, Mass., is worth placing on record.

In October, 1897, Dr. C. C. Torrey gathered some fine specimens of *Agaricus illudens*, growing on the campus of the Theological Seminary at Andover. The fungi, which were prepared by Mrs. Moore, were fried with a little butter, and eaten at lunch by four persons, viz., Mrs. X., æt. about sixty, Mrs. Moore, Dr. Torrey and Albert Moore, the latter a boy, fourteen years old. The two latter each ate three or four of the fungi; Mrs. Moore two or three, while Mrs. X. only ate a piece as large as a quarter of a dollar. All pronounced the fungus to be of excellent flavor. About an hour after eating, symptoms of discomfort were noticed by Mrs. Moore, but as she is subject to indigestion they were not associated with the fungus eaten. The two ladies went out to drive, Dr. Torrey to play tennis and Albert Moore to school. About three o'clock, that is something less than two hours after the meal, all were taken with free and vigorous vomiting, which continued at intervals through the afternoon. The nausea was not accompanied by burning sensations in the stomach or any other symptoms of poisoning; there was no depression and no disturbance of the bowels at the time or subsequently. In short the fungus acted as a simple but very effective emetic. In the evening the nausea passed off and the next day all were as well as usual, except Mrs. X., who, being something of an invalid, still suffered the nervous consequences of the experiment.

Besides the four persons mentioned there were present at the lunch Professor Moore and a niece, neither of whom partook of the fungi, and neither of whom experienced any of the symptoms from which the others suffered, thus furnishing what may be called a control experiment.

The only treatment employed was an emetic of mustard and salt-water, which the more heroic male members of the quartet took on general principles, followed by a little whiskey. Professor Moore remarks that the remedies used probably had little effect since the *Agaricus illudens* itself took care that the emesis should be thorough and that the whiskey should not stay down.

Last September, I received from Mr. Walter Brem of Morganton, N. C., a specimen of *Agaricus illudens* with a letter asking whether it

was edible. On October 4, a letter was received from Mr. Brem, stating that a lot of the same fungus he had sent me had been served at the State Institution for the Deaf and Dumb with the following result: "Eight teachers and children were poisoned, one very badly, but all recovered. The effect was just as you stated—all suffered from terrible nausea."

Agaricus illudens is frequently found during the latter part of the summer and early autumn throughout the eastern states, and is one of our most beautiful species. It usually grows on stumps near the ground and occurs in large clusters, the beautiful yellowish orange-colored pilei overlapping each other. The species was first described by Schweinitz in 1822, in his *Synopsis Fungorum Carolinæ Superioris*, and later in 1834, in his *Synopsis Fungi Am. Bor.* under the subgenus *Clitocybe*. As the subgenus is now generally kept distinct the name most commonly given to the fungus is *Clitocybe illudens* Schweinitz, although some mycologists have doubts whether the species is strictly a *Clitocybe* as the genus is now understood. In several respects, *Clitocybe illudens* has a strong resemblance to *Agaricus olearius* Pers., of southern Europe, which is now placed in the genus *Pleurotus*, although the stipe is hardly more lateral than is often the case with *C. illudens*. Both species resemble each other very much in color and general habit of growth and both are markedly phosphorescent. *P. olearius* is more frequently found on the olive than on other trees, but it also occurs on *Carpinus*, *Populus* and some other trees. Like *C. illudens* it is also poisonous when eaten, producing nausea and vomiting and, it is said, purging. *C. illudens* is considered to be a characteristic species of North America, and it is interesting to notice in how many respects it resembles *P. olearius*. The toxicological action of the species is almost that of a pure emetic, acting shortly after ingestion and unlike the emesis caused by narcotic species, as *Amanita phalloides*, in which the action is secondary and does not occur until eight or ten hours after eating. Nor in the case of *C. illudens* is the emesis accompanied by the acute gastric and intestinal disturbance found in poisonous fungi classed as irritants as distinguished from narcotics.